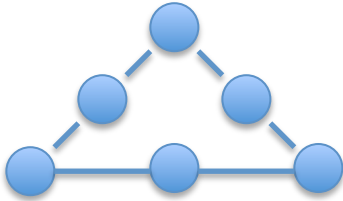


## Balanced Math Planning

**Date:** Week of October 3-7, 2011 **Amount of Time:** Approximately 60 minutes

<b>Strand:</b> Number Sense and Numeration – Prime Numbers and Prime Factoring  <b>Expectation:</b> determine common factors and common multiples using the prime factorization of numbers  <b>Big Idea:</b> Factoring, Multiples	
<b>Minds On</b>	
<b>Open Question</b>	Write a number that is divisible by at least two different prime factors. What are other, non-prime factors of this number?
<b>Action</b> Balanced Math Centres	
<b>SMARTboard</b>	SMARTboard lesson: 100s chart Question: On graduation day, 100 Grade 8 students lined up outside the school. Upon entering, they passed their lockers. The first student opened all the lockers. The second student closed every second locker. The third student changed the position of every third door (from open to closed, from closed to open). The fourth student changed the position of every fourth door. This pattern continues until the last student enters the school. Which doors are still open? <i>Resource:</i> Smart Exchange, Math Power 8
<b>Math Facts</b>	Worksheet – p. 4 “Prime Factors of Composite Numbers” <i>Resource:</i> Ontario Math Workbook 8 (Nelson)
<b>Math Games</b>	Board Game: Factors and Multiples, CrossOver: Die X Die + or – 1 Prime Number Chart Materials: counters, dice, gameboards <i>Resource:</i> Practice Makes Perfect Math Games (#30), Dice Activities for Mathematical Thinking
<b>Shared Problem Solving (2)</b>	Parallel Tasks: 1) Can you find a number less than 150 that is divisible by 4 different prime numbers? Explain. 2) Write the numbers from 1 to 6 in the circles so that the sum of each side is prime: <div style="text-align: center;">  </div> <i>Resource:</i> modified questions from Math Power 8
	The 6-digit number 678 □44 is divisible by 3. Which digits could go in the hundredths place?  <i>Resource:</i> modified question from Math Makes Sense 8
<b>Guided Problem Solving</b>	Via projector – Powerpoint with the following question: Mr. Bax has decided to open up a new business – a noodle factory! His clients have placed orders for noodles of every size, from 1 to 100. Every noodle size needs its own machine. But, Mr. Bax realizes

	<p>(because he's so smart) that instead of buying every machine, he can combine machines to get a specific noodle size. For example, for a size 6 noodle, you can put the pasta through the "2" machine and then through the "3" machine to get a size of 6. The question is, what machines does Mr. Bax need to buy for his noodle factory, and what machines does he not have to buy?</p> <p><i>Resource:</i> self-generated</p>
<b>Laptop Activities</b>	<p>There will be 2 lessons labeled under Balanced Math file</p> <p>Students -&gt; Common -&gt; Bax -Math</p> <p><i>Resource:</i> SMART Exchange</p>
<b>Consolidation</b>	
<p><b>Consolidation:</b> Students share their solutions for Shared Problem Solving questions. Discuss answers that might vary.</p> <p><b>Journal:</b> The prime factors of a number are 2, 3, and 5. What is the number? List three other factors of the number that are not prime.</p>	